
CANCER FACTS

National Cancer Institute • National Institutes of Health

Questions and Answers About Smokeless Tobacco and Cancer

1. What is smokeless tobacco?

There are two types of smokeless tobacco—snuff and chewing tobacco. **Snuff**, a finely ground tobacco, is packaged as dry, moist, or in sachets (tea bag-like pouches). Typically, the user places a pinch or dip between the cheek and gum. Sniffing (inhaling) dry snuff through the nose is more common in European countries than in the United States. **Chewing tobacco** is available in loose leaf, plug, or twist forms, with the user putting a wad of tobacco inside the cheek. Smokeless tobacco is sometimes called “spit” or “spitting” tobacco because people spit out the tobacco juices and saliva that build up in the mouth.

2. What harmful chemicals are found in smokeless tobacco?

- C Chewing tobacco and snuff contain 28 carcinogens (cancer-causing agents).^{*} The most harmful carcinogens in smokeless tobacco are the tobacco-specific nitrosamines (TSNAs). They are formed during the curing, fermenting, and aging of tobacco. TSNAs have been detected in smokeless tobacco at levels 100 times higher than the levels of other nitrosamines that are allowed in bacon, beer, and other foods.
- C Other cancer-causing substances in smokeless tobacco include formaldehyde, acetaldehyde, crotonaldehyde, hydrazine, arsenic, nickel, cadmium, benzopyrene, and polonium (which gives off radiation).
- C Nicotine is another element in smokeless tobacco. The amount of nicotine absorbed is 2 to 3 times the amount delivered by a cigarette. People who consume 8 to 10 dips or chews per day receive the same amount of nicotine as a heavy smoker who smokes 30 to 40 cigarettes a day. Nicotine is absorbed more slowly from smokeless tobacco than from cigarettes, but more nicotine per dose is absorbed from snuff and chewing tobacco than from cigarettes. Also, the nicotine stays in the bloodstream for a longer time.

^{*}National Cancer Institute. *Cancer Rates and Risks*. 4th edition. National Institutes of Health, 1996. p. 70.

3. Is smokeless tobacco a good substitute for cigarettes?

As long ago as 1986, the Surgeon General concluded that the use of smokeless tobacco “is not a safe substitute for smoking cigarettes. It can cause cancer and a number of noncancerous conditions and can lead to nicotine addiction and dependence.”

4. What about using smokeless tobacco to quit cigarettes?

Because of the addictive properties and documented health risks associated with smokeless tobacco, it should not be used to quit cigarettes.

5. What cancers are caused by or associated with smokeless tobacco use?

- C Smokeless tobacco users increase their risks of cancers of the oral cavity, pharynx (throat), larynx, and esophagus. Oral cancer can include cancer of the lip, tongue, cheeks, gums, and the floor and roof of the mouth.
- C People who use snuff for a long time have a much greater risk for cancer of the cheek and gum than people who do not use tobacco.
- C The possible increased risk for other types of cancer from smokeless tobacco is being studied.

6. Are there other ways smokeless tobacco can harm users' health?

Some of the other effects of smokeless tobacco include addiction to nicotine, oral leukoplakia (white mouth lesions that can become cancerous), gum disease, gum recession (when the gum pulls away from the teeth), loss of bone in the jaw, tooth decay, tooth loss, tooth abrasion (worn spots on the teeth), yellowing of teeth, chronic bad breath, high blood pressure, and increased risk for cardiovascular (heart) disease.

7. What are the statistics on smokeless tobacco use?

- C The use of moist snuff and other types of smokeless tobacco almost tripled from 1972 through 1991 in the United States.
- C According to the 1997 National Household Survey on Drug Abuse, 92 percent of smokeless tobacco users are male.
- C The same survey found that 2 percent of young people (male and female) ages 12 to 17 used smokeless tobacco in the past month.

- C Many athletes, especially baseball players, use smokeless tobacco. A study conducted from 1988–1990 found that 37.5 percent were smokeless tobacco users. Most preferred moist snuff.

8. Where can I find out how to quit?

A number of organizations provide information about where to find help to stop using smokeless tobacco. State and local health agencies often have information about community tobacco cessation programs. The local or county government section in the phone book (blue pages) has phone numbers for health agencies. Information to help smokers who want to quit is also available through community hospitals, the yellow pages (under "drug abuse and addiction"), public libraries, health maintenance organizations, health fairs, bookstores, and community helplines.

Several national organizations provide information about the health risks of smokeless tobacco and how to quit:

- C The Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Mailstop K–50, 4770 Buford Highway NE., Atlanta, GA 30341–3724 distributes brochures and maintains a database of smoking and health-related materials. To speak with an information specialist or staff member, the telephone number is 770–488–5705. For publication requests in English and Spanish from the Smoking, Tobacco, and Health Information Line, the telephone number is 1–800–CDC–1311. Resources are also available from the Office on Smoking and Health's Tobacco Information and Prevention Source homepage at <http://www.cdc.gov/tobacco> on the Internet.
- C The American Cancer Society (ACS) publishes a series of pamphlets with helpful tips and techniques for smokeless tobacco users who want to quit. The white pages of the telephone book may have the phone number for the local ACS office, which can also provide referrals to smokeless tobacco cessation programs. If a local number is not listed, the ACS's Cancer Response System can provide assistance at 1–800–ACS–2345. For more information, contact ACS's National Home Office at 1599 Clifton Road NE., Atlanta, GA 30329–4251.
- C The American Lung Association (ALA), an organization dedicated to fighting smoking-related diseases, provides referrals to local smokeless tobacco cessation programs. Many local ALA offices also have self-help materials. For more information, contact ALA's national headquarters at 1740 Broadway, New York, NY 10019–4374. The white pages of the telephone book may have the phone number for a local ALA chapter. If a local number is not listed, the ALA office of the state from which the caller places the call can provide information at 1–800–LUNG–USA (1–800–586–4872).

- C Information about Nicotine Anonymous, a 12-step program, can be obtained from Nicotine Anonymous World Services, Post Office Box 591777, San Francisco, CA 94159-1777. The phone number is 415-750-0328. Resources from Nicotine Anonymous are also available at <http://www.nicotine-anonymous.org> on the Internet.

9. What other resources are available?

A person's doctor or dentist can be a good source of information about the health risks of smokeless tobacco and about quitting. Friends, family, teachers, and coaches can help smokeless tobacco users kick the habit by giving them support and encouragement.

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Sources of National Cancer Institute Information

Cancer Information Service

Toll-free: 1-800-4-CANCER (1-800-422-6237)

TTY: 1-800-332-8615

NCI Online

Internet

Use <http://www.cancer.gov> to reach NCI's Web site.

CancerMail Service

To obtain a contents list, send e-mail to cancermail@icicc.nci.nih.gov with the word "help" in the body of the message.

CancerFax® fax on demand service

Dial 301-402-5874 and listen to recorded instructions.

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